The New TB Epidemiologic Studies Consortium (TBESC):

Improving Clinical Outcomes for LTBI

May 24, 2012

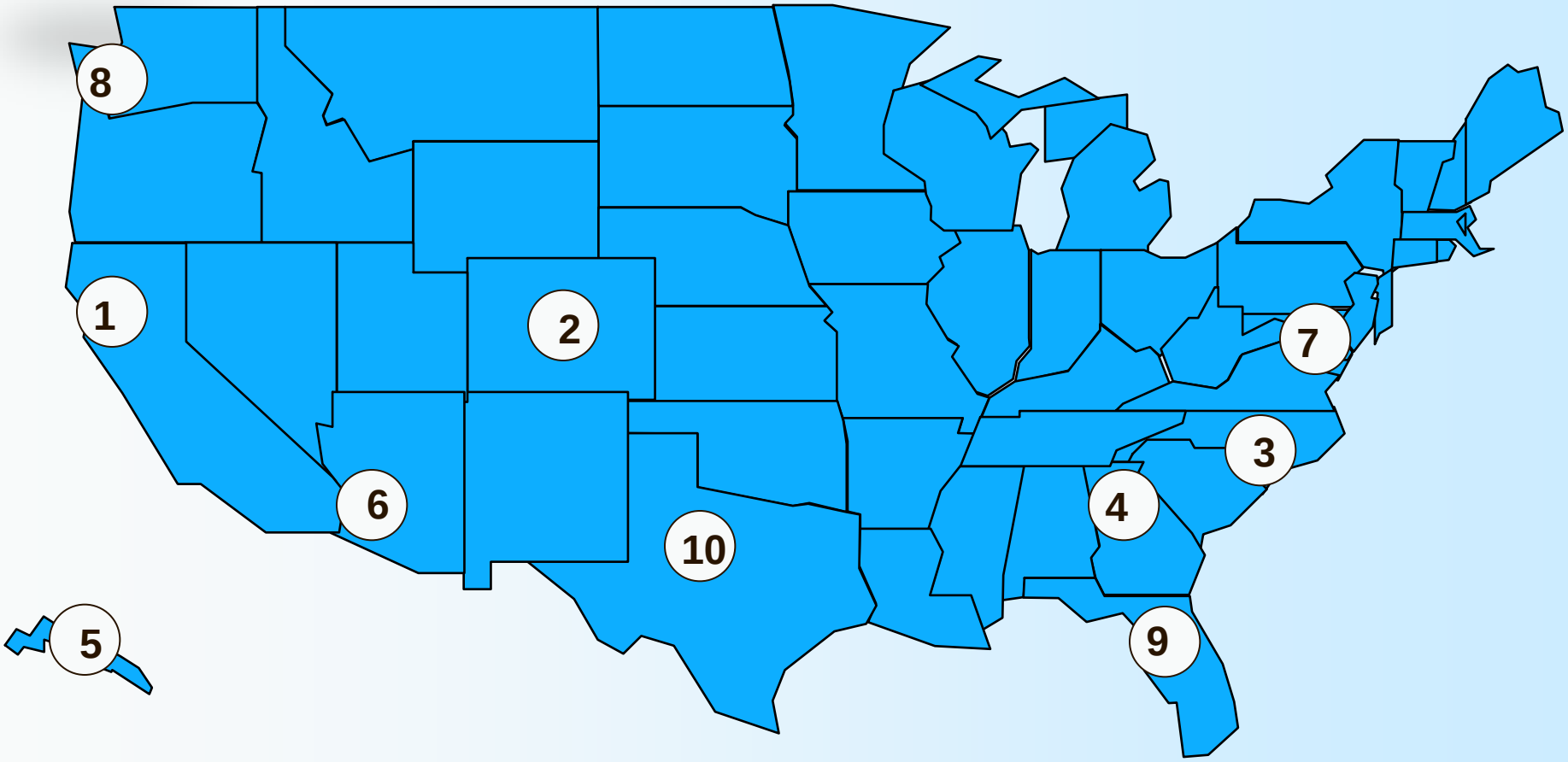
Presentation Outline

- Review the new TBESC purpose and structure
- Describe Task Order 1
  - Objectives
  - Sample size
  - Methods
- Review the Maryland site staff and clinics

Basic Structure

- 10 sites; 10-year contracts
- U.S. based research
- LTBI focus = major step to eliminate TB
- One main underlying study, all sites
  - Task Order 1: LTBI in high-risk groups
  - Treatment-related adverse events/outcomes
- Add-on studies
  - Education to improve screening and treatment
  - Operational barriers and interventions

TBESC Sites



TBESC Task Order 1

“Prospective Comparison of the TST and IGRAs in Diagnosing LTBI and Predicting Progression from LTBI to Active TB Disease”

Study questions (1)

1. What is the agreement between the TST and 2 IGRA's?

2. What is the "ability" of each test to predict progression to TB disease?

3. Are higher interferon-gamma responses associated with a greater risk of active TB?

Study questions (2)

4. Do IGRAs have a role in monitoring the response to LTBI treatment?

5. Can sensitivity / specificity of IGRAs be improved by changing the cut-off values?

6. How well do IGRAs diagnose LTBI in special populations including children and HIV?

Sites and sample size

Site	Enrollment
California DOH	3,725
Denver DOH	3,550
Duke University	4,250
Emory University	5,650
Hawaii DOH	3,550
Maricopa County [AZ] DOH	3,550
Maryland DOH	**4,250**
Seattle-King County [WA] DOH	3,550
University of Florida Board of Trustees	3,550
University of North Texas	7,022
TOTAL	**42,647**

Study eligibility (1)

Adults and children:

1. Persons with LTBI+ rate of at least 25% by TST, QFT-GIT, or T-SPOT

   - Refugees/asylees
   - Recently arrived foreign-born
   - Some medical risks (HIV)
   - Any others proven by site to qualify

Study eligibility (2)

Adults and children:

2. Contacts of infectious TB patients
3. Residents of congregate settings with known TB transmission (e.g., outbreak)

TBESC timeline

Year 1

- Protocol
- IRB
- Pilot

Years 2 to 8

- Participant enrollment
- 2-year follow-up
- Data entry
- Data quality assurance

Years 9 to 10

- Final follow-up
- Data analysis
- Reports

Study methods (1)

- 600 or more participants to be enrolled at the Maryland TBESC site annually
- Clinic staff notify clients about study
- Informed consent
- LTBI screening
- LTBI+ (any test) are followed for 2 yrs

Study methods (2)

- LTBI screening
  - ❑ IGRA blood samples drawn by study coordinators unless routinely done by clinic
  - ❑ TST placed [after IGRAs] by study coordinators unless routinely done by clinic
  - ❑ QFT-GIT – processed at DHMH Labs
  - ❑ T-SPOT – submitted to Oxford Immunotec® in Massachusetts

Study methods (3)

- 2-year follow-up
  - ❑LTBI-negative: Baseline interview
  - ❑LTBI-positive (any test)
    - Interview at 0, 6, 12, 18, and 24 mo.
    - Outcomes: TLTBI, TB disease
- National TB registry search for cases

Study methods (4)

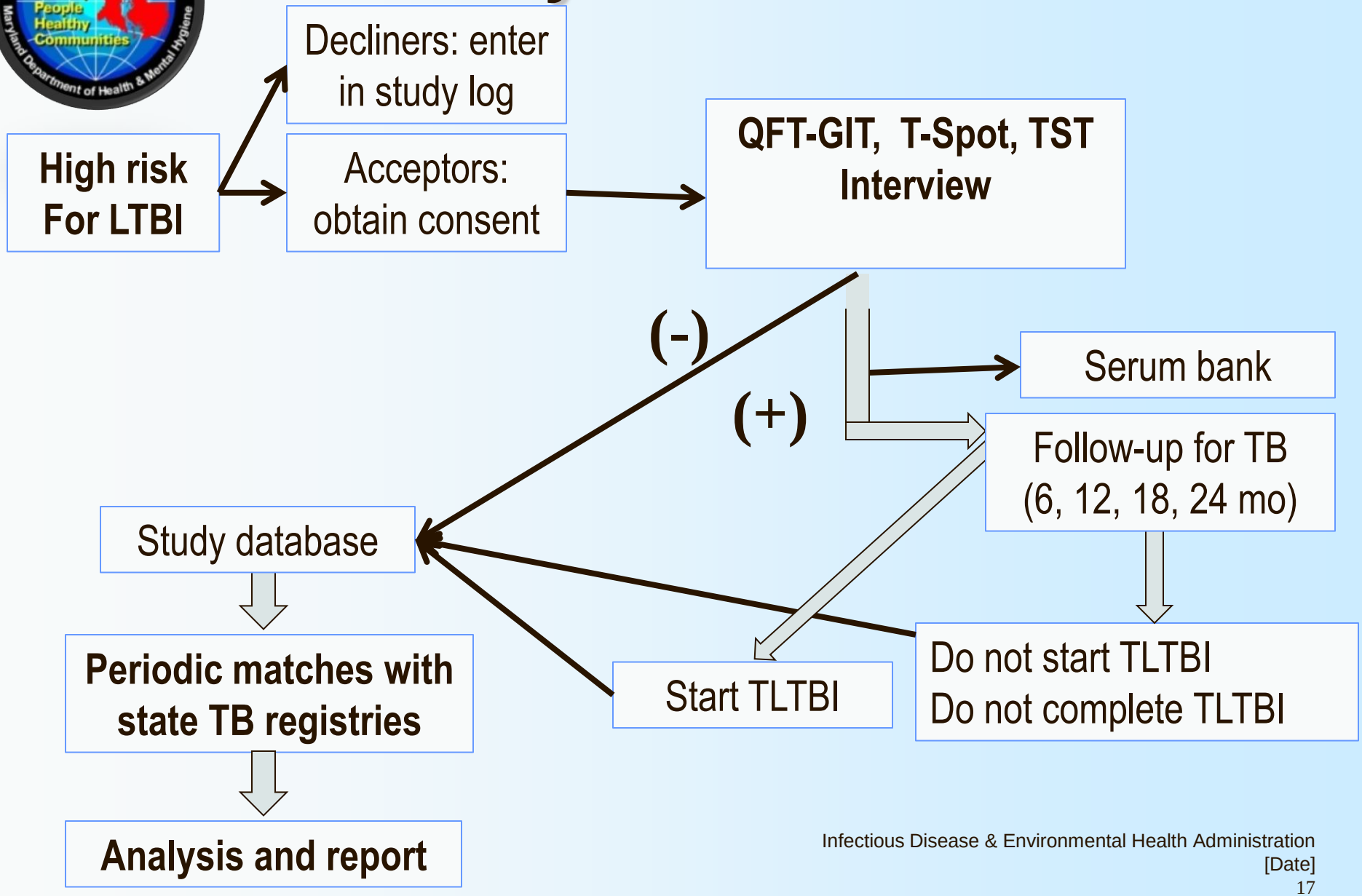
- Data collection
  - Known exposures
  - Demographics
  - Risk factors (behavioral, social, medical)
  - LTBI test positive (any test)
    - TB disease diagnosis
    - TLTBI offered/ accepted/ completed
    - TLTBI regimen, dose, timeframe
    - Toxicity, adverse events

Incentives, Maryland

- All participants
  - $20 - Initial interview

- Participants with any positive test
  - $10 – 6 month interim interview
  - $10 – 12 month interim interview
  - $10 – 18 month interim interview
  - $20 – 24 month final interview

Study schematic



Maryland Study Sites

TB and refugee clinics, and health centers in:

- Baltimore City
- Baltimore County (UMBC)
- Montgomery County
- Baltimore and Prince George's Counties as needed for follow-up

Maryland TBESC Staff

- Wendy Cronin, PhD, site PI
- Susan Dorman, MD, site Co-PI
- Gina Maltas, RN, study nurse
- Elizabeth “Bee” Munk, RN, study nurse
- Heather Schneider, BS, research assistant
- Rich Oatis, BS, laboratory scientist